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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/417,332	10/13/1999	ROBERT BEDICHEK	TRANS09	7303

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Wagner Murabito & Hao LLP
Two North Market Street
Third Floor
San Jose, CA 95113

EXAMINER
ELLIS, RICHARD L

ART UNIT	PAPER NUMBER
2183	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _26 November 2007_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-9 and 15-21_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-9 and 15-21_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

1.   Claims 1-9 and 15-21 remain for examination.

2.   The text of those sections of Title 35, US Code not included in this action can be found in a prior Office Action.

3.   Applicant's amendment of claim 17 in the response received November 26, 2007 has corrected the conditions which led to claim 17 being rejected as indefinite. Accordingly that rejection is withdrawn.

4.   35 USC § 101 reads as follows:

> "Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title".

5.   Claims 8-9 and 19-20 are rejected under 35 USC § 101 because the claimed invention as supported by the specification can be interpreted as computer software per. se. and therefore had no structure to make the supposed apparatus actually an apparatus (claim 8 is a "system" claim, purporting to claim a machine).

6.   Claim 8 contains four clauses written in means-plus-function claim format. Of the four, three clearly are defined by the specification in terms of software only, and the fourth finds no support in the specification. Of the three means which find support in the specification, the support clearly shows that the means are software (computer program) based means, and therefore, can be viewed as software per. se. These are "means for dynamically translating" pg. 5 lines 14-15; "means for responding to an exception" pg. 14 lines 15-23; and "means for interpreting each target instruction" pg. 11 lines 5-7. Furthermore in regards to the "means for dynamically translating" and "means for interpreting", claim 9 explicitly claims these two means as nothing more than pure software. As to the means which finds no support in the specification, "means for selecting a stored translated sequence", given that the entirety of the specification discusses how the "software" functions to perform all tasks of the invention, the only logical conclusion is that were the "means for selecting" to find support in the specification, it to would find its support as pure software. Accordingly, because the entirety of the claim can be interpreted as pure software only, the claim contains no structure to make the supposed machine (an interconnection of parts) actually a machine. Dependent

claims 9 and 19-20 do not cure this deficiency of claim 8. In fact, claim 9 explicitly states that

at least two of the means are nothing more than software per. se.

7.   Furthermore, computer programs, per. se., are not processes, machines, manufactures,

or compositions of matter and are therefore non-statutory subject matter:

> "Since a computer program is merely a set of instructions capable of being executed by
> a computer, the computer program itself is not a process and USPTO personnel should
> treat a claim for a computer program, without the computer-readable medium needed to
> realize the computer program's functionality, as nonstatutory functional descriptive
> material. When a computer program is claimed in a process where the computer is
> executing the computer program's instructions, USPTO personnel should treat the
> claim as a process claim. See paragraph IV.B.2(b), below. When a computer program
> is recited in conjunction with a physical structure, such as a computer memory, USPTO
> personnel should treat the claim as a product claim. See paragraph IV.B.2(a), below."
> (MPEP § 2106.01)

> "Similarly, computer programs claimed as computer listings per se, i.e., the
> descriptions or expressions of the programs, are not physical "things." They are neither
> computer components nor statutory processes, as they are not "acts" being performed.
> Such claimed computer programs do not define any structural and functional
> interrelationships between the computer program and other claimed elements of a
> computer which permit the computer program's functionality to be realized. In contrast,
> a claimed computer-readable medium encoded with a computer program is a computer
> element which defines structural and functional interrelationships between the computer
> program and the rest of the computer which permit the computer program's
> functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32
> USPQ2d at 1035. Accordingly, it is important to distinguish claims that define
> descriptive material per se from claims that define statutory inventions." (MPEP §
> 2106.01)

8.   Claims 8-9 and 19-20 are rejected under 35 USC § 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

> MPEP 2181: "If there is no disclosure of structure, material or acts for performing the
> recited function, the claim fails to satisfy the requirements of 35 U.S.C. 112, second
> paragraph. > "[A] bare statement that known techniques or methods can be used does
> not disclose structure" in the context of a means plus function limitation."

In the case of claim 8, there is no disclosed structure, material, or acts in the

specification to support the claimed "means for selecting a stored translated sequence of

instructions for execution". In fact, after a perusal of the specification, no support for

selecting any stored translated sequence of instructions has been provided. Applicant's

specification details the storing (creating) of translated instructions, but no support has been

found for selecting (retrieving) those same stored instructions for execution. Accordingly, no corresponding structure, material, or acts are provided to support this means-plus-function language in claim 8.

Applicants can overcome this rejection by clearly pointing out where within the specification can be found such "structure, material or acts" sufficient to support this means-plus-function language in claim 8. Applicants must also explain how any such cited specification language provides this support as part of their response. Claims 9 and 19-20 inherit this deficiency and do not themselves correct the deficiency.

9.   Claims 8-9 and 19-20 are rejected under 35 USC § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a written description rejection.

> MPEP 2181: "Whether a claim reciting an element in means- (or step-) plus-function language fails to comply with 35 U.S.C. 112, second paragraph, because the specification does not disclose adequate structure (or material or acts) for performing the recited function is closely related to the question of whether the specification meets the description requirement in 35 U.S.C. 112, first paragraph. See In re Noll, 545 F.2d 141, 149, 191 USPQ 721, 727 (CCPA 1976) (unless the means-plus-function language is itself unclear, a claim limitation written in means-plus- function language meets the definiteness requirement in 35 U.S.C. 112, second paragraph, so long as the specification meets the written description requirement in 35 U.S.C. 112, first paragraph)."

Claim 8, as detailed in the rejection under 35 USC 112 2nd paragraph above recites a means-plus-function claim limitation that lacks disclosure of the corresponding "structure, material or acts" within the specification. Therefore, because the specification lacks disclosure of this "structure, material or acts", the specification has failed to meet the written description requirement because this means-plus-function element has not been described adequately to "convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention". Claims 9 and 19-20 inherit this deficiency and do not themselves correct the deficiency.

10.   Claims 1, 3, 8-9, and 15 are rejected under 35 USC 102(e) as being clearly anticipated by Babaian et al., U.S. Patent Application Publication US2002/0,092,002 A1.

11.   Claims 2, 4-7, and 16-20 are rejected under 35 USC § 103 as being unpatentable over

Babaian et al., in view of Lethin et al., U.S. patent 6,463,582.

           Babaian et al. and Lethin et al. were cited as a prior art reference in paper number 13,

mailed May 10, 2004.

12.   The rejections are respectfully maintained and incorporated by reference as set forth in

the last office action, paper number 20070110, mailed January 18, 2007.

13.   Applicant's arguments filed November 26, 2007 have been fully considered but they

are not deemed to be persuasive.

14.   In the remarks, applicant argues in substance:

A.   That: "Applicants have amended independent Claim 1 to include the feature of using
          additional registers during execution for holding an official state of a target processor.
          Applicants respectfully assert that independent Claims 3 and 8 recite similar limitations
          and have been amended in a substantially similar manner.
                   Applicants point out that this is completely different from the cited references,
          which disclose a register file used for storing execution data.. There appears to be no
          recitation regarding additional registers." (remarks filed November 16, 2006)

          "The cited reference, Babaian, as discussed herein fails to expressly or inherently
          disclose using additional registers during execution for holding an official state of a
          target processor, as claimed. ... Applicants can find no recitation regarding additional
          registers." (remarks filed November 26, 2007)

This is not found persuasive because the Babaian et al. reference also discloses the use

of additional registers for holding the official state of the processor. See paragraphs 0048 and

0049 where Babaian et al. discusses preserving register data and system status information in

temporary registers, and then further indicates that "a portion of the general-purpose registers

in register file 110 will be allocated to function as the set of temporary registers." (P 0049, last

three lines). Accordingly, Babaian et al. has disclosed the claimed "a plurality of additional

registers are used during execution for holding the official state of a target processor".

Furthermore, by stating that the system is "preserving the original operands and system status

information" Babaian et al. is stating that it is "holding the official state" of the target

processor.

15.   Claim 21 is rejected under 35 USC § 102(e) as being clearly anticipated by Babaian et

al., U.S. Patent Application Publication US2002/0,092,002 A1.

16.   As to claim 21, it does not teach or define above the invention claimed in claim 1 and is

therefore rejected under Babaian et al. for the same reasons set fourth in the rejection of claim

1, <u>supra</u>. The difference between claim 1 and claim 21 is that claim 21 includes language

stating: "a buffer stores working memory state changes and official memory state changes".

Babaian et al. disclosed a buffer that performs this minimal claimed functionality at paragraph

0028 where Babaian et al. indicates that there is a buffer that stores "working memory state

changes and official memory state changes" to the extent required by the claim language. I.e.,

because "working" and "official" state changes comprise the complete set of state changes, and

Babaian et al. discloses a buffer storing the complete set of state changes, it is storing both
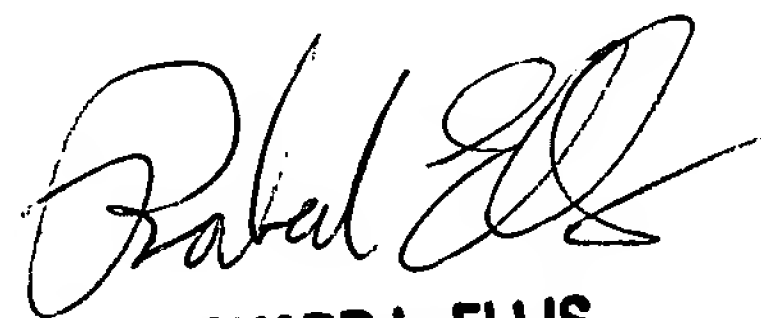
"working" and "official" state changes.

17.   A shortened statutory period for response to this action is set to expire 3 (three) months
and 0 (zero) days from the mail date of this letter. Failure to respond within the period for
response will result in **ABANDONMENT** of the application (see 35 USC 133, MPEP 710.02,
710.02(b)).

18.   Any inquiry concerning this communication or earlier communications from the Examiner should be directed to
Richard Ellis whose telephone number is (571) 272-4165. The Examiner can normally be reached on Monday through
Thursday from 7am to 5pm.

         If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Eddie Chan, can be
reached on (571) 272-4162. The fax phone number for the USPTO is: (703)872-9306.

         Any inquiry of a general nature or relating to the status of this application should be directed to the Group
receptionist whose telephone number is (571) 272-2100.

Richard Ellis
January 25, 2008

RICHARD L. ELLIS
PRIMARY EXAMINER